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STURTEVANT

Mill Company, Boston

Catalogue

Catalog No. 1067
Year of Issue 1912
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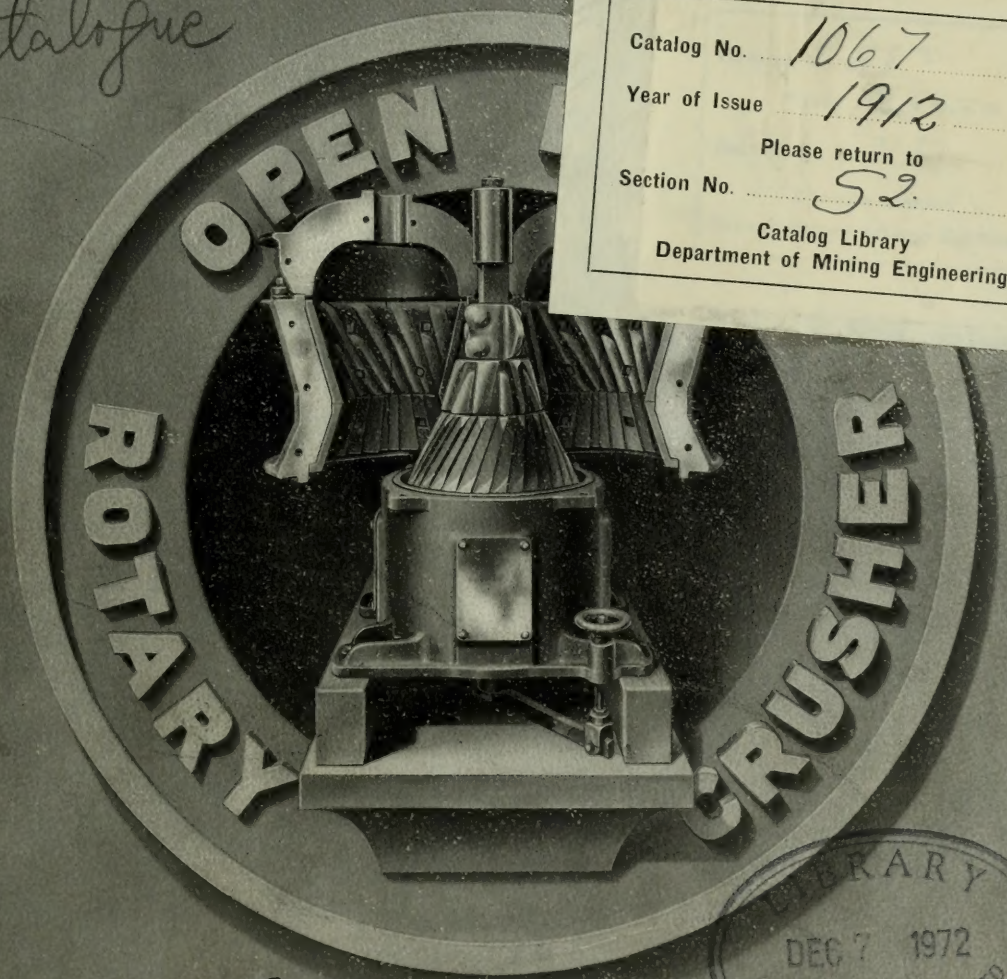

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Crusher - Sampler

BOSTON MASS

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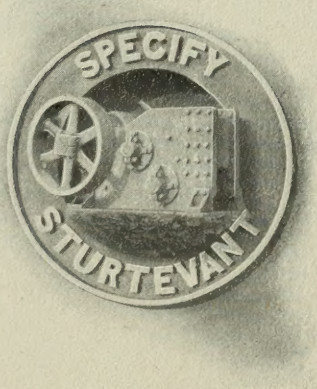

ESTABLISHED 1883

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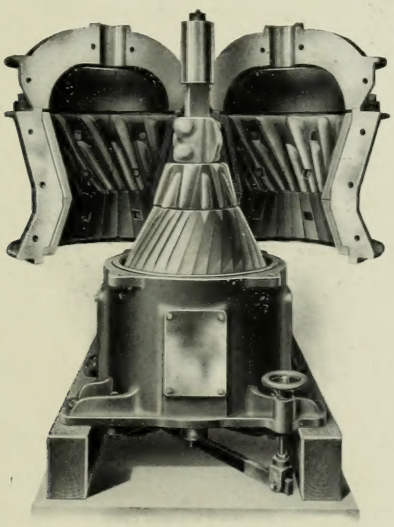
STURTEVANT MILL CO

STURTEVANT

CRUSHING, GRINDING, SCREENING, MIXING, SACKING AND WEIGHING MACHINERY

ALL OF STURTEVANT QUALITY



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STURTEVANT ENGINEERING CO., Ltd., LONDON

Paris Brussels Berlin Vienna Turin

STURTEVANT MILL COMPANY

HARRISON SQUARE BOSTON MASSACHUSETTS

The STURTEVANT PLAN

Because performance equals expectation, a Sturtevant machine may be bought by those unacquainted with it, on the following terms:

" It may be agreed that the purchaser shall set it at work on dry material promptly after arrival, and if within thirty days after it is received the purchaser does not find it satisfactory in every respect, it can be returned to seller's works, in good condition, ordinary wear excepted, and with freight prepaid, and the buyer's obligations hereunder thus be closed and ended. If buyer's option to return is not availed of as is herein provided, the machine must be paid for as agreed."

Every prospective purchaser is invited to send samples (transportation prepaid) to our Testing Department at Harrison Square, Mass., which is equipped with machines of full size. Here, without charge, tests may be personally conducted, and as thoroughly as required to determine the adaptability of Sturtevant machinery. Trials are frequently ordered, and results reported. This department is largely availed of, and decisions of much importance to buyers are frequently made and costly errors avoided.

The experience gained in producing machines of the highest class for so many years, has a real value. Designs tested by thousands of users, and faults discovered and corrected form a strong basis for confidence. It is only gradually that the best machines are evolved. That they do not break is because we have been taught where to make them strong; that they give maximum outputs is because experience has taught how to make them effective. What each has done is known. This company sells no machine that it does not believe fit for the purpose. Machinery that is sure to run well is certain of appreciation.

STURTEVANT STANDS FOR THE BEST

STURTEVANT MILL COMPANY

Harrison Square BOSTON Massachusetts

PATENTED

OPEN DOOR ROTARY CRUSHERS

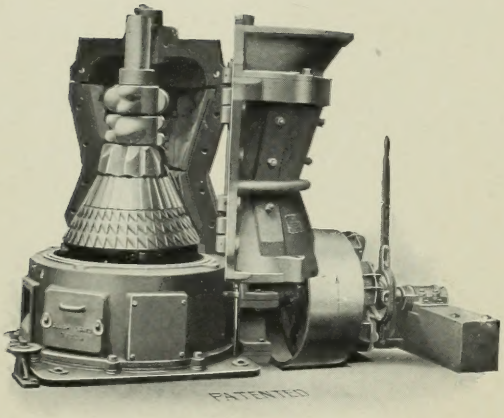
ROTARY CRUSHERS have a field of usefulness filled by no other rock reducing machines. They do not compete with Jaw or Gyratory Crushers, or others of this type, as neither can satisfactorily perform the work of the other. Jaw and Gyratory Crushers are for hard rocks and ores, and are not suited for soft and moderately hard substances. Rotary Crushers cannot give satisfaction on hard cutting substances, but excel all others when used for softer materials. Therefore, do not consider them together, but each as occupying a special place in the reduction field.

¶ Rotary Crushers can crush far below the limit of fineness of any Jaw or Gyratory Crusher, and "Open Door" Rotary Crushers are designed to produce large quantities of ¼ inch and finer or coarser materials without Screens.

STURTEVANT MILL COMPANY

Harrison Square BOSTON Massachusetts

OPEN DOOR ROTARY FINE CRUSHERS



SYNOPSIS

TYPE: — Rotary, but not Gyratory.

USES: — For crushing soft and moderately hard materials, which do not contain quantities of Silica, Quartz, or similar cutting substances.

RANGE OF OUTPUT: — Reducing lumps 8 inches in size or finer to from one inch to ¼ inch and finer, without Screens.

CAPACITY: —From ¼ to 35 tons per hour, according to size of machine, and the nature or crushability of material.

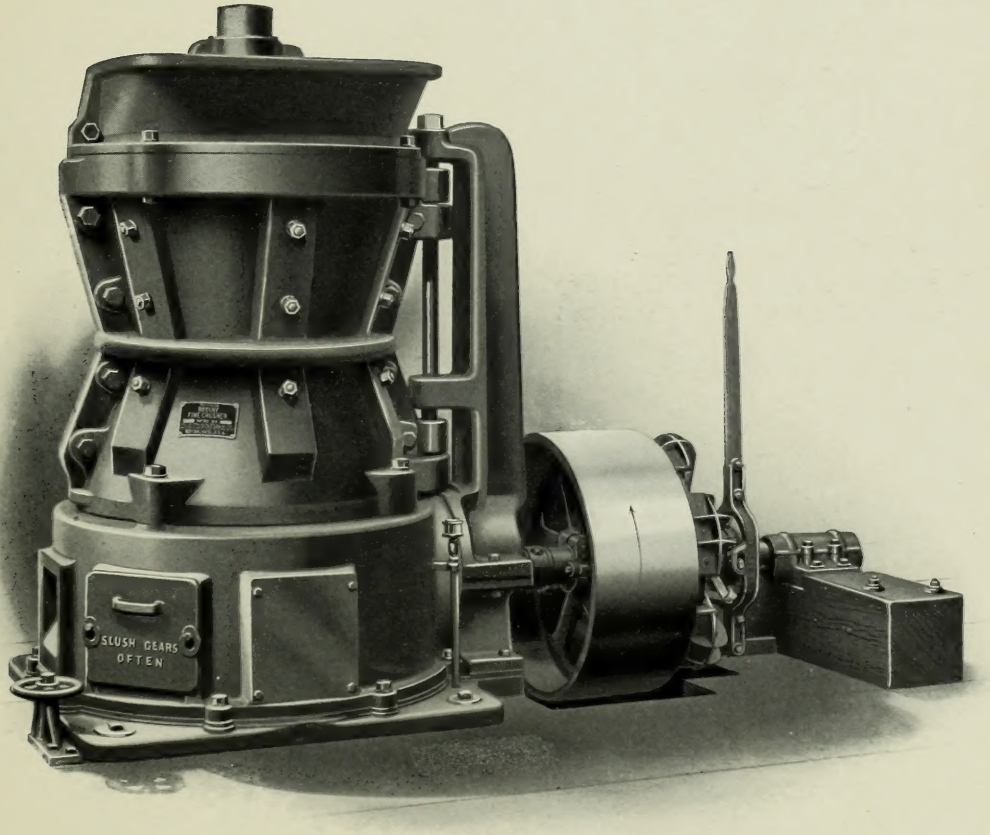
POWER: — From 1 to 35 Horse Power.

ACCESSIBILITY: — The "Open Door" exposes all wearing parts for replacement or inspection, and for removing any obstruction, which often gets into such machines.

SOME MATERIALS CRUSHED IN ROTARY CRUSHERS

Barytes	Chalk	Fossil Flour	Marl	Shale
Bauxite	Charcoal	Fullers Earth	Ochres	Slag (the softer grades)
Black Lead	Chemicals	Graphite	Oxides	Slate
Bone (Calcined)	Cinders	Gypsum	Oyster Shells	Soapstone
Borate Ore	Clinkers	Infusorial Earth	Paints	Soda Ash
Borax	Clay	Lime	Phosphate Rock	Soda
Burned Lime	Coal	Limestone (soft)	Plaster	Nitrate of Soda
Carbide	Coke	Litharge	Plumbago	Caustic Soda
Carbons	Colors	Magnesite	Pumice Stone	Sulphur
Cement	Facings	Marble	Salt	Talc, etc., etc.

OPEN DOOR ROTARY FINE CRUSHERS



Patented

No. 2 Rotary Fine Crusher with doors closed ready to run.

Can discharge on either of three sides.

No special foundation required, no reciprocating parts and therefore no vibration.

OPEN DOOR ROTARY FINE CRUSHERS

Rotary Crushers are not new; there are thousands in use, and when working on proper material, under fair conditions, always give satisfaction.

PAST TROUBLES

Their one fault, however, has been inaccessibility, and the consequent troubles and delays encountered in removing uncrushable substances that frequently go in with the feed and wedge the crushing members. Also, when wearing parts required renewal, replacements have not been easy. One would think that Rotary Crushers have suffered from these objections — well known as they are to everybody — but the facts are quite otherwise. They have never had a competitor, and in their proper field are so useful that it is perfectly safe to state that there are more of them in use today than any other rock reducing machine.

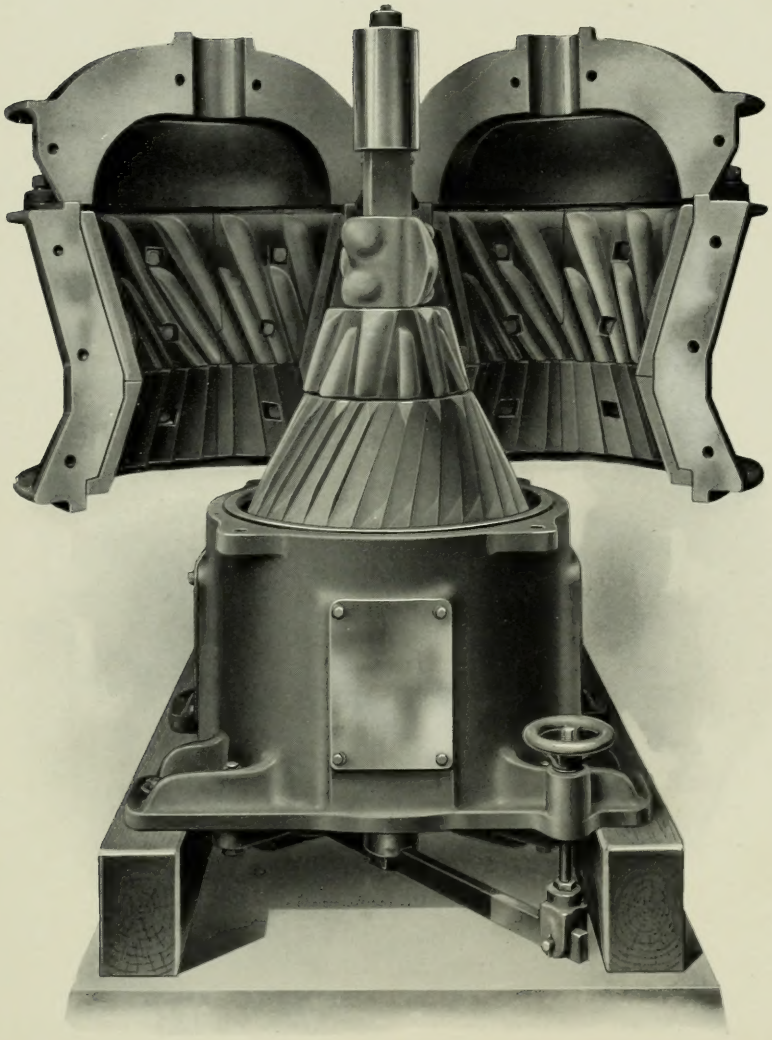
"OPEN DOOR" CRUSHERS

The Sturtevant "Open Door" has remedied this one fault. The Rotary Crusher's double doors carry all non-rotating crushing parts, and the doors swing open as easily as the doors of a safe, and expose every working part of the Crusher. Clogging, uncrushable materials, like bits of drills, spikes, horse shoes, or railway car links, that often clog and wedge these machines can be removed at once. Needless to state, that if any objection is to be made to this Sturtevant improvement in Rotary Crushers, some new point must be discovered. Their present accessibility is evident; in strength, nothing more can be desired.

ONE MAN

One man can open the largest made. For the first time it is possible to make these machines big enough to satisfy the great manufacturers; because, wherever they may be used, no hoisting of massive parts has to be done. They are truly one-man machines. All other large Crushers of this class require the heavy parts to be hoisted away to give access to the interior.

OPEN DOOR ROTARY FINE CRUSHERS



Patented

No. 1½ Rotary Fine Crusher.

Doors open ready for inspection or to replace wearing parts.

OPEN DOOR ROTARY FINE CRUSHERS

THE open door is a feature appreciated by all users, for this old friend is born again, and to a new usefulness.

They crush large rocks to nearly $\frac{1}{8}$ inch without Screens in the smallest sizes, and as coarse as one inch or down to $\frac{1}{2}$ inch and finer in others. They are built with capacities from $\frac{1}{2}$ to 35 tons per hour, according to size, and the material being reduced, and now that the Sturtevant Open Door principle has been adopted, they are as nearly free from all troubles as any machine can be. When the doors are closed, no Crusher is stronger, and no other is so good; not one has ever broken.

Grinding members can be furnished to do coarse or fine work, and the millstone accelerating nuts give extraordinarily large outputs of finely-crushed material.

Everybody approved the Open Door Crusher when it appeared, and in the years that have followed no one has been disappointed. Users who have tried them will have no other. Our long list of satisfied customers is the best inducement that can be named to purchasers.

Rotary Crushers are much superior to gyratory or jaw machines for the reduction of moderately hard and soft rocks. They do more coarse work, and can reduce to a fineness not possible for the others. They are also far less costly. They crush fine—they crush fast—and they crush at smallest cost, and do not clog.

Please open your doors to these remarkable machines—we believe you will never regret it. In manufacturing plants the time lost in shut-downs for renewal of wearing parts, and the removal of foreign uncrushable obstructions, is money lost. The saving made here by the "Open Door" will soon pay back its cost.

OPEN DOOR ROTARY FINE CRUSHERS

No. 1½ size.

Complete ready to run.

This size has a friction clutch pulley.

OPEN DOOR ROTARY FINE CRUSHERS

CONSTRUCTION

The frame of the Rotary Crusher is of cast iron, the shaft of steel, turning on the best babbitt metal, in bearings of the Sturtevant type. The safety hopper is designed to prevent the throwing out of large pieces. The millstone nuts slip onto a square shaft and insure a fine product. The accelerating furrows hasten discharge, and prevent clogging in finest work. Dust locks protect the bearings.

These Rotary Crushers can be regulated while running, for fine, or coarse work, by turning the adjusting wheel.

Please notice the following special features in opposite illustration:

The material is crushed by gradual reduction:

Two distinct crushing actions: 1st, the upper parts have a continuous nipping action: 2nd. the lower cone reverses this action, and substitutes the shredding, rubbing or millstone-grinding principle, with its centrifugal, rapid, continuous, furrow discharge.

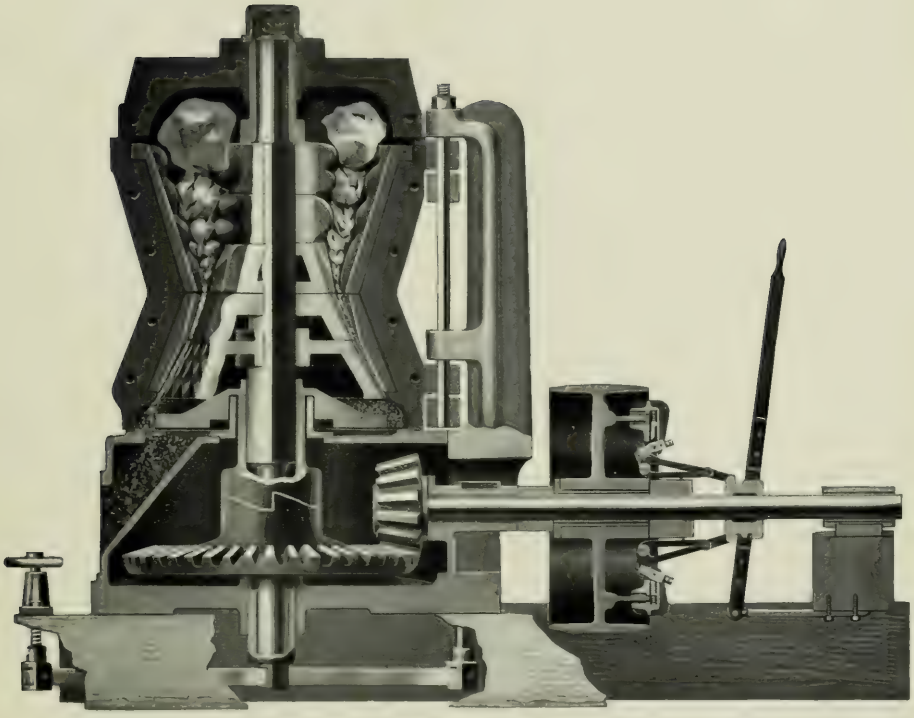
The discharge opening is as great as the circumference of the receiving space, allowing the material to pass out as soon as it is fine enough. This discharge is larger than in any machine of its type. All crushing, grinding and discharge operations are continuous; no reciprocating movements, no vibration.

The scrapers are supported independently of the shaft, and are not affected by Crusher adjustment.

The gear drives directly on the squared portion of the shaft, and not through keys which in other machines are a constant source of trouble.

The top bearing is free to slide up and down, and resting on the shoulder of the shaft makes a tight joint and efficient dust-lock.

OPEN DOOR ROTARY FINE CRUSHERS



Patented—Patent Pending

No. 2 "Open Door" Rotary Fine Crusher
Showing the simplicity of its operation and construction.
Note its massive proportions, its friction clutch pulley.
It discharges on either of three sides.

OPEN DOOR ROTARY FINE CRUSHERS

NOT CHEAPLY BUILT

They are not cheaply built, although designed not to be expensive. Like all Sturtevant productions, every part has been carefully studied; not to make a cheaper but a better machine than has heretofore been produced.

ROTARY FINE CRUSHERS AND VERTICAL EMERY MILLS

(*See Catalogue 64*)

Form a complete and inexpensive plant of large capacity, for reducing nearly all soft and moderately hard rocks from the size of one's head to almost any fineness.

It is the simplest and, by far, the most economical plant to install. No foundations, no screens. Both machines are complete ready for belt when shipped.

Rotary Crushers are also used largely in connection with Iron Roller Mills, Buhr stones, etc. With them, this Crusher forms an inexpensive and complete plant for fine or coarse work.

In fact we know of nothing that can compete with a Sturtevant Rotary Fine Crusher followed by a Sturtevant Vertical Emery Mill for economically doing this class of work.

IMPORTANT

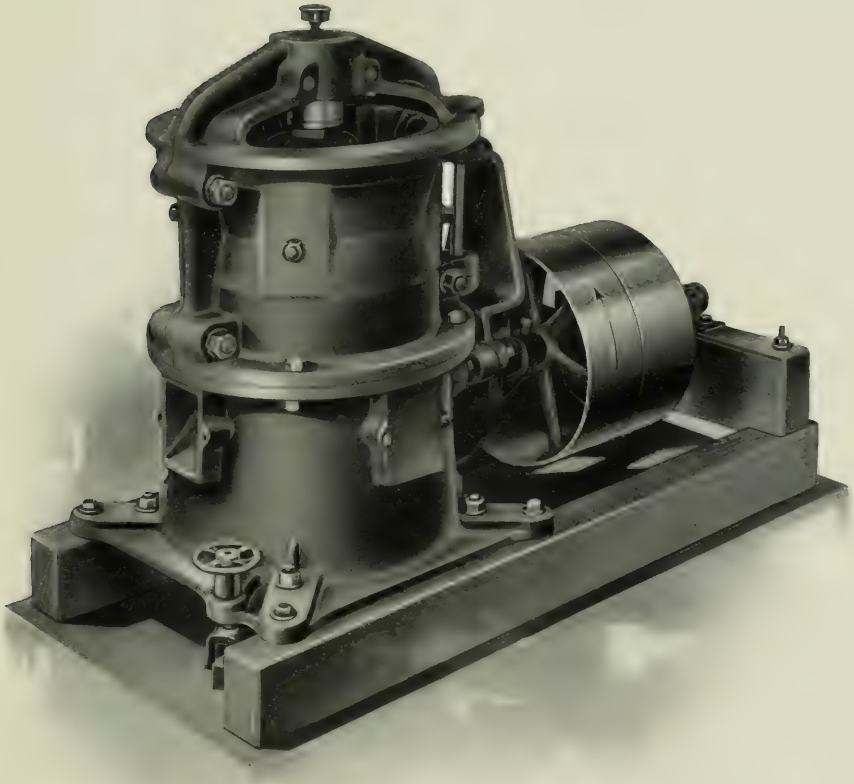
This is the age of rapid production, and this means SPECIALIZATION—i.e., the selection of mechanisms exactly adapted to produce at LEAST COST.

In order that we may intelligently give patrons the benefit of our long experience, we hope they will send us careful answers to the following questions;

What Material do you desire to reduce?

Is it Wet or Dry?
Is the substance Hard or Soft?
What is its Size before treatment?
How Fine a product is wanted?
What Capacity do you desire?
What machines are now used?

OPEN DOOR ROTARY FINE CRUSHERS



Patented

No. 0 "Open Door" Rotary Fine Crusher

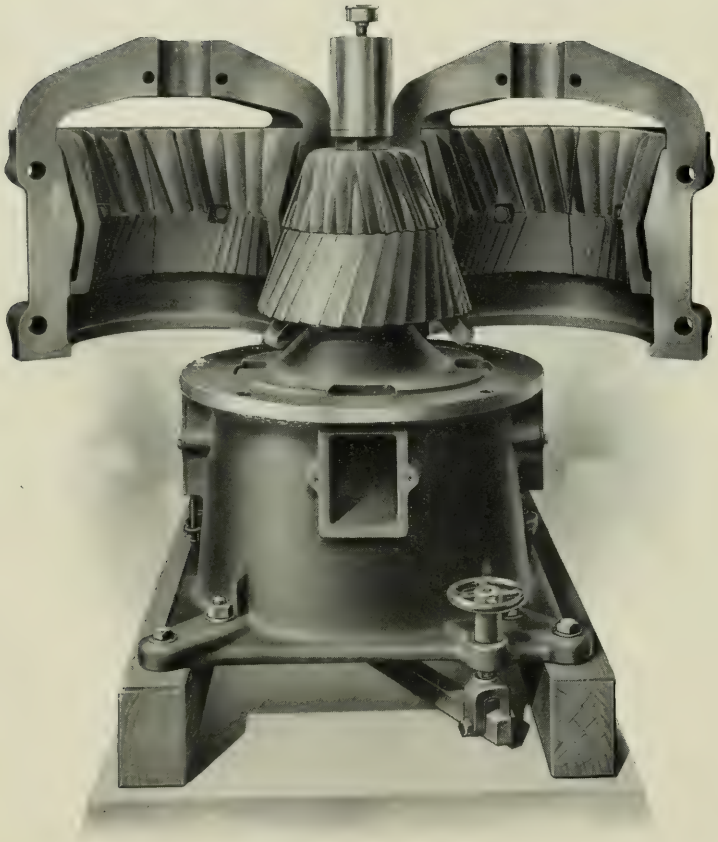
The No. 0 Rotary Fine Crusher is designed for very fine and even work, although adjustable for coarser crushing.

In convenience, ease of setting up and running, this is a remarkable machine.

It is intended to do finer crushing than other types: i.e., reducing two or three inch pieces of moderately hard material to sand size, without Screens, but it is also capable of much coarser work.

The quality of output is unequalled, and the quantity compares favorably with much more expensive machines.

OPEN DOOR ROTARY FINE CRUSHERS



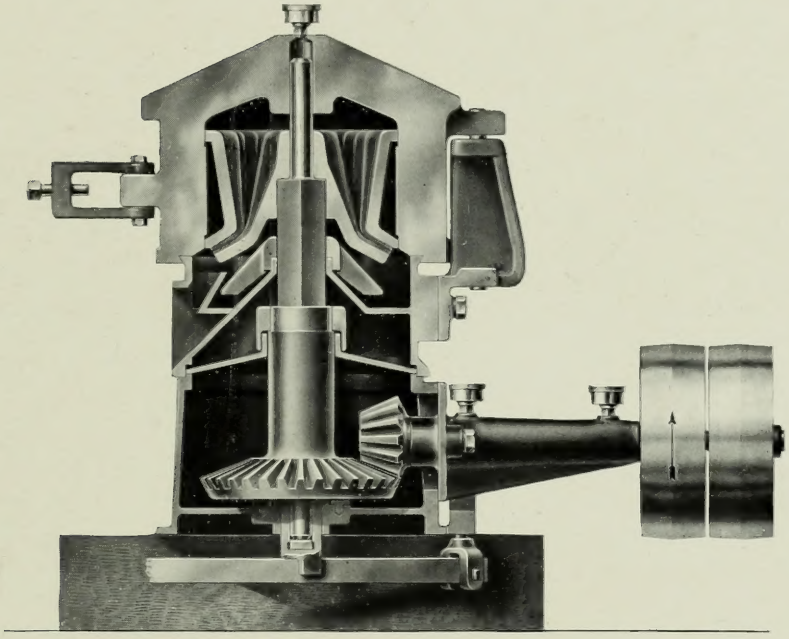
Patented

No. 0. "Open Door" Rotary Fine Crusher with door open

Simple, Compact and accessible.
Large range of adjustment.
Discharges from any of three sides.

OPEN DOOR ROTARY FINE CRUSHERS

CRUSHER AND SAMPLER COMBINED



No. 00 Rotary Fine Crusher and Automatic Sampler

There is a large demand for a machine that will crush various materials to a fine size and accurately sample them at the same time.

This little crusher has been designed for that purpose and does the work beautifully.

It will take almost any soft or moderately hard material 3 inches or smaller in size and crush it to cracked corn size and finer, or coarser if desired, at the rate of 500 to 1000 pounds per hour, and will deliver an absolutely accurate representative sample consisting of from 5 to 15% of the amount fed.

For example: putting through 100 pounds of coal the sample spout will discharge 5 pounds, or any other proportion desired, within the above limits.

It has the same "Open Door" accessible construction as our other Rotary Crushers.

OPEN DOOR ROTARY FINE CRUSHERS

A Few Users of Open Door Rotary Fine Crushers.

Mathieson Alkali Co.
Ash Grove White Lime Assn.
Lee Lime Co.
American Carbolite Co.
Lorain Paint Co.
Glencoe Cement Co.
Armour Fertilizer Co.
Climax Lime Co.
Pittsburgh Reduction Co.
Buffalo Litholite Co.
Acme Cement Plaster Co.
Fowler & Pay
National Carbon Co.
Thomson-Houston Carbon Co.
General Chemical Co.
Oxnard Construction Co.
Theo. H. Eaton & Co.
Guilford Plaster Co.
Federal Chemical Co.
Sterling Sugar Co.
Jarecki Chemical Co.
Castner Electro-Alkali Co.
Ohio Marble Co.
Pacific Lime & Plaster Co.
American Kaolin Co.
S. Obermayer Co.
Standard Lime Co.
Billings Sugar Co.
Moore Lime Co.
Oakland Chemical Co.
Denney Clay Co.
Custer City Charcoal Milling Co.
Sidney Cement Co., Ltd.
Federal Granite Buck Co.
Iowa Paint Mfg. Co.
Ohio and Western Lime Co.
U. S. Graphite Co.
Marbolith Stone Co.
Tennessee Cement and Lime Co.
Mt. Rock Lime Kilns
The Osborne Limestone Co.
Eastern Facing Mills
Spokane Pressed Buck Co.
Wisconsin Chemical Co.
A. Mendleson's Sons
Didier-March Co.
Savannah Brick Works
The Stearns Lime Co.
H. H. Castul
Dighton Stove Lining Co.
American Beet Sugar Co.
Carnegie Steel Co.
Union Lime Co.
Spreckles Sugar Co.
Great Northern Paper Co.
Primos Chemical Co.
Penn. Facing Mills
Harpers Ferry Lime Co.
Western Lime Co.
Eastern Carbon Works
Henry Erwin & Co.
Solvay Process Co.
American Steel and Wire Co.
American Silica Co.
Bridgewater Brick Co.
American Talc Co.
Tenn. Hydrated Lime Co.
Massachusetts Talc Co.
Canada Paint Co.
Eastern Talc Co.
Standard Button Co.
Hill & Griffith
Norton Co.
Buckhorn Plaster Co.
Manhattan Lime Co.
Stony Ridge Stone Co.
Northampton Talc Co.
Sterling Salt Co.
Springfield Facing Co.
Northern Aluminum Co.
Gutta Percha & Rubber Mfg. Co.
J. B. King & Co.
Cochrane Chemical Co.
Knickerbocker Lime Co.
Planters Chemical & Oil Co.
Aluminum Co. of America
Southern Talc Co.
Columbia Chemical Co.
Reno Bros. Paint Co.
Merrimac Chemical Co.

"Open Door" Rotary Fine Crushers.

Code Word	No.	Hopper Opening†	Approx. Cap. Tons per Hour	Approx. Horse Power	Speed Rev.	Pulley Diam. Face	Length	Width	Height	Approx. Weight Net lbs.	Approx. Weight Gross lbs.
BIAL. . . .	00	6x18 in.	¼ to 1	1 to 2	300	12 x 4	3ft. 9in.	1ft. 11in.	2ft. 9in.	600	750
BION . . .	0	9x18 in.	½ to 2	3 to 4	250	18 x 6	5ft.	2ft. 3½in.	3ft. 7in.	1300	1600
BIACCHI .	1	6x19 in.	1 to 6	6 to 10	300	24 x 8	5ft. 11in.	3ft. 5in.	4ft. 11½in.	4000	4700
BIANTE .	1½	10x28 in.	4 to 10	15	200	30 x 10	7ft. 3in.	3ft. 6in.	6ft.	6000	7000
BISTRO . .	2	19x30 in.	8 to 15	15 to 20	250	30 x 12	8ft. 8in.	3ft. 10in.	7ft. 1in.	9000	10500

Subject to change without notice.

†These approximate dimensions do not mean the size rock the machines can grip.

THE
ATLANTIS PRESS
OF BOSTON

CATALOGUE No. 63A